L Number	Hits	Search Text	DB	Time stamp
1	14	(measuring with (pattern adj density)) and (polishing or polish or CMP)	USPAT; US-PGPUB	2004/09/08 15:47
2	6	((measuring with (pattern adj density)) and (polishing or polish or CMP)) and @ad<20010831	USPAT; US-PGPUB	2004/09/08 15:49
3	0	(measuring with (pattern adj density)) and (polishing or polish or CMP)	EPO; JPO; DERWENT; IBM_TDB	2004/09/08 15:47
5	94	438/692-695.ccls. and (pattern adj density) and (polishing or polish or CMP)	USPAT; US-PGPUB	2004/09/08 15:49
6	66	(438/692-695.ccls. and (pattern adj density) and (polishing or polish or CMP)) and @ad<20010831	USPAT; US-PGPUB	2004/09/08 15:49
7	17	((438/692-695.ccls. and (pattern adj density) and (polishing or polish or CMP)) and @ad<20010831) and measuring	USPAT; US-PGPUB	2004/09/08 15:50

DOCUMENT-IDENTIFIER: US 20010036676 A1

TITLE: Semiconductor wafer polishing endpoint detecting system
and method therefor

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Summary of Invention Paragraph - BSTX (6):
[0005] FIG. 10 is an illustration showing a construction of one example of
the prior art. A semiconductor wafer polishing endpoint detecting system shown
in FIG. 10 is constructed with a polishing bed 2 provided with a predetermined
dimension of detection hole 43, an abrasive cloth 3 on the polishing bed 2 and
provided with a detection hole 43 at the same position as the polishing bed 2,
a view window 44 sealing the detection hole 43 as polishing fluid in-flow
preventing means for preventing in-flow of a polishing fluid into a detection
optical system from the detection hole 43, a laser light source 46 for
irradiating an inspection light 45 of a predetermined diameter onto a polishing
surface of the wafer as a polishing object through the detection hole 43 and
the view window 44, a photodetector 48 receiving a regular reflection light 47
reflected on the wafer for **measuring** a light amount to output as a light amount
signal o, averaging means 49 for averaging the light amount signal o per one
turn of the wafer 1 and outputting a third averaged data pin discrete manner,
and polishing end point detection means 50 comparing the averaged data p output
from the averaging means 40 with a predetermined threshold value detected by a
reflection index of a material formed on the wafer 1, **pattern density** and a
structure of the wafer 1, such as **pattern density** or the

like and detecting a
timing when the averaged data p is decreased below the
threshold value as the
polishing endpoint.